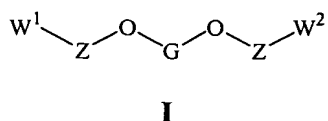
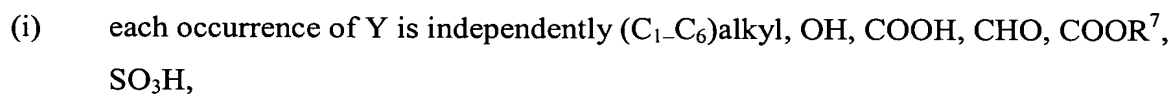


What is claimed is:

1. A compound of a formula I:



- 5 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:
- (a) each occurrence of Z is independently $(\text{CH}_2)_m$, $(\text{CH}=\text{CH})_t$, or phenyl, where each occurrence of m and t is an independent integer ranging from 1 to 9;
- (b) G is $(\text{CH}_2)_x$, $\text{CH}_2\text{CH}=\text{CHCH}_2$, $\text{CH}=\text{CH}$, $\text{CH}_2\text{-phenyl-CH}_2$, or phenyl, where x is 2, 3, or 4;
- 10 (c) W^1 and W^2 are independently $\text{C}(\text{R}^1)(\text{R}^2)(\text{CH}_2)_n\text{-Y}$, V, $\text{C}(\text{R}^3)(\text{R}^4)\text{-(CH}_2)_c\text{-C}(\text{R}^5)(\text{R}^6)\text{-(CH}_2)_n\text{-Y}$, or $\text{C}(\text{R}^1)(\text{R}^2)\text{-(CH}_2)_c\text{-V}$ where c is 1 or 2 and n is an integer ranging from 0 to 4;
- (d) each occurrence of R^1 and R^2 is independently $(\text{C}_1\text{-C}_6)\text{alkyl}$, $(\text{C}_2\text{-C}_6)\text{alkenyl}$, $(\text{C}_2\text{-C}_6)\text{alkynyl}$, phenyl, benzyl, or , R^1 and R^2 and the carbon to which they are both attached are taken together to form a $(\text{C}_3\text{-C}_7)\text{cycloalkyl}$ group;
- 15 (e) each occurrence of R^3 and R^4 is independently H, $(\text{C}_1\text{-C}_6)\text{alkyl}$, $(\text{C}_2\text{-C}_6)\text{alkenyl}$, $(\text{C}_2\text{-C}_6)\text{alkynyl}$, phenyl, benzyl, R^3 and R^4 and the carbon to which they are both attached are taken together to form a $(\text{C}_3\text{-C}_7)\text{cycloalkyl}$ group;
- (f) R^5 is H, $(\text{C}_1\text{-C}_6)\text{alkyl}$, $(\text{C}_2\text{-C}_6)\text{alkenyl}$, $(\text{C}_2\text{-C}_6)\text{alkynyl}$, $(\text{C}_1\text{-C}_6)\text{alkoxy}$, phenyl, benzyl, Cl, Br, CN, NO_2 , or CF_3 ;
- 20 (g) R^6 is OH, $(\text{C}_1\text{-C}_6)\text{alkyl}$, $(\text{C}_2\text{-C}_6)\text{alkenyl}$, $(\text{C}_2\text{-C}_6)\text{alkynyl}$, $(\text{C}_1\text{-C}_6)\text{alkoxy}$, phenyl, benzyl, Cl, Br, CN, NO_2 , or CF_3 ;
- (h) V is



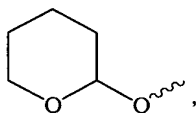
(j) R^7 is (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C_1-C_6) alkoxy, or phenyl groups;

5 (k) each occurrence of R^8 is independently H, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, or (C_2-C_6) alkynyl and is unsubstituted or substituted with one or two halo, OH, (C_1-C_6) alkoxy, or phenyl groups;

(l) each occurrence of R^9 is independently H, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, or (C_2-C_6) alkynyl; and

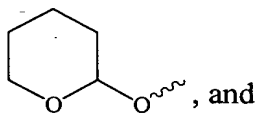
(m) with the provisos:

10 (i) that when G is $(CH_2)_x$, then W^1 and W^2 cannot both be $C(R^1)(R^2)-CHO$ or cannot both be



(ii) that when G is phenyl, then W^1 and W^2 cannot:

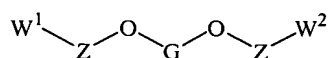
15 both be $C(R^1)(R^2)-COOH$,
both be $C(R^1)(R^2)-CH_2OH$,
both be $C(R^1)(R^2)-COOR^7$,
both be $(CH_2)_3-C(H)(OH)-CH_2OH$,
both be $(CH_2)_2-C(H)(OH)-CH_2OH$,
both be $C(R^1)(R^2)-CHO$, or
20 both be



(iii) that when every occurrence of Z is phenyl, then W^1 and W^2 cannot both be $C(R^1)(R^2)-OH$.

2. The compound of claim 1, wherein W^1 and W^2 are independently $C(R^1)(R^2)(CH_2)_n-$
25 Y, V, $C(R^3)(R^4)-(CH_2)_c-C(R^5)(R^6)-Y$, or $C(R^1)(R^2)-(CH_2)_c-V$.

3. The compound of claim 1, wherein W^1 and W^2 are independently $C(R^1)(R^2)(CH_2)_n$ -Y, V, or $C(R^1)(R^2)-(CH_2)_c$ -V.
4. The compound of claim 1, wherein W^1 and W^2 are independent $C(R^1)(R^2)(CH_2)_n$ -Y groups.
5. The compound of claim 1, wherein W^1 is $C(R^1)(R^2)(CH_2)_n$ -Y.
6. The compound of claim 1, wherein W^1 is V.
7. The compound of claim 1, wherein W^1 is $C(R^3)(R^4)-(CH_2)_c$ - $C(R^5)(R^6)$ -Y.
8. The compound of claim 1, wherein W^1 is $C(R^1)(R^2)-(CH_2)_c$ -V.
9. The compound of claim 4, wherein each occurrence of Y is independently OH, COOR⁷, or COOH.
10. The compound of claim 4, wherein each occurrence of Y is independently OH or COOH.
11. The compound of claim 1, wherein m is an integer ranging from 1 to 4 and t is 1.
12. The compound of claim 1, wherein R^6 is OH, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, (C₁-C₆)alkoxy, phenyl, benzyl, Cl, or Br.
13. A compound of a formula **Ia**:



Ia

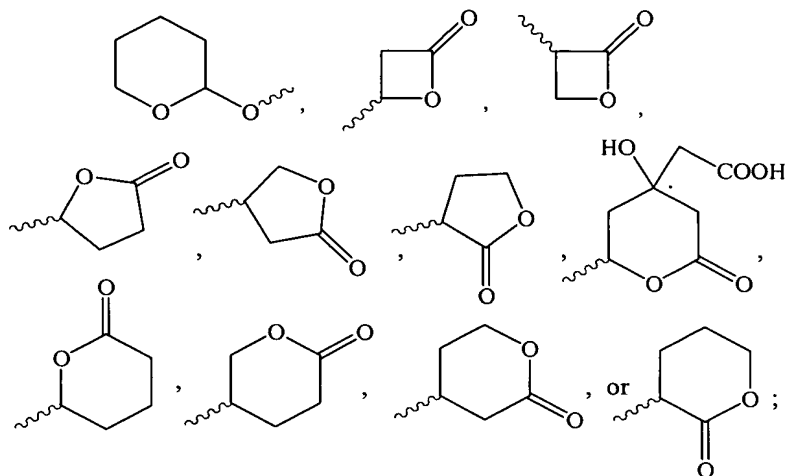
or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- (a) each occurrence of Z is independently $(CH_2)_m$ or $(CH=CH)_t$, where each occurrence of m and t is an independent integer ranging from 1 to 9;
- (b) G is $(CH_2)_x$, $CH_2CH=CHCH_2$, or $CH=CH$, where x is 2, 3, or 4;

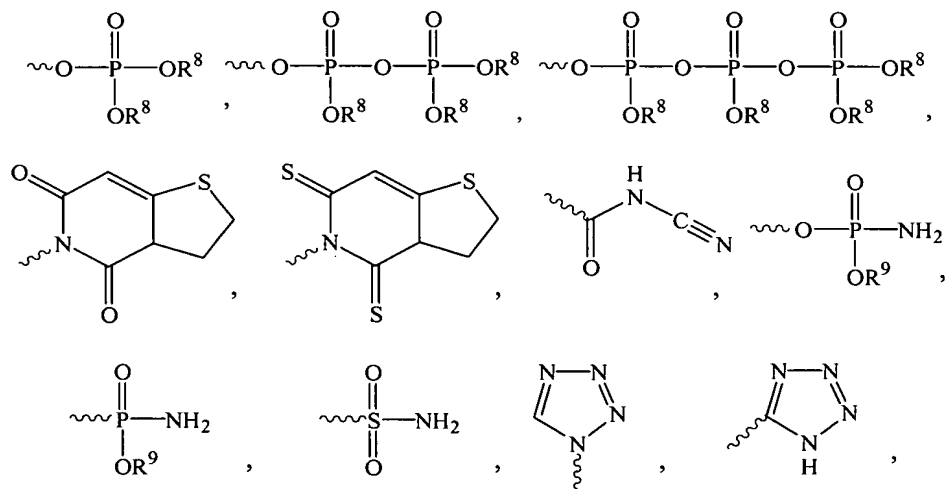
(c) W^1 and W^2 are independently $C(R^1)(R^2)(CH_2)_n-Y$, V , or $C(R^1)(R^2)-(CH_2)_c-V$, where c is 1 or 2 and n is an integer ranging from 0 to 4;

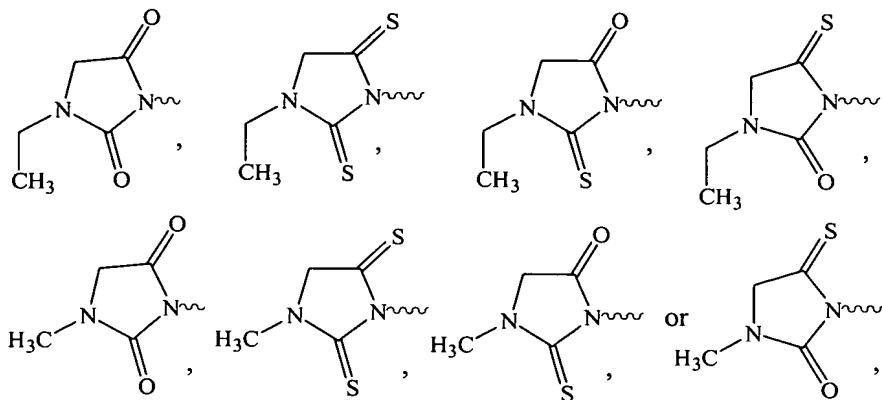
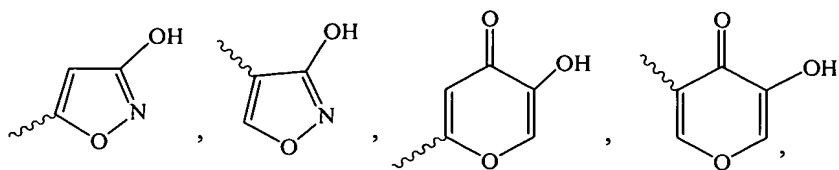
(d) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, benzyl, or R^1 and R^2 and the carbon to which they are both attached are taken together to form a (C_3-C_7) cycloalkyl group;

(e) V is

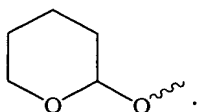


(f) each occurrence of Y is independently OH , $COOH$, CHO , $COOR^7$, SO_3H ,



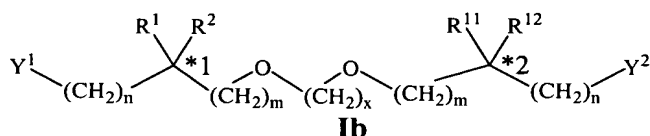


- (g) R^7 is (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C_1-C_6) alkoxy, or phenyl groups;
- (h) each occurrence of R^8 is independently H, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, or (C_2-C_6) alkynyl and is unsubstituted or substituted with one or two halo, OH, (C_1-C_6) alkoxy, or phenyl groups;
- (i) each occurrence of R^9 is independently H, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, or (C_2-C_6) alkynyl; and
- (j) with the proviso that when G is $(CH_2)_x$, then W^1 and W^2 cannot both be $C(R^1)(R^2)-CHO$ or cannot both be



14. The compound of claim 13, wherein W^1 and W^2 are independent $C(R^1)(R^2)(CH_2)_n-Y$ groups.
15. The compound of claim 13, wherein W^1 is $C(R^1)(R^2)(CH_2)_n-Y$.
16. The compound of claim 13, wherein W^1 is V.

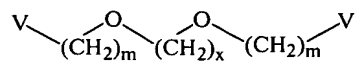
17. The compound of claim 13, wherein W^1 is $C(R^1)(R^2)-(CH_2)_e-V$.
18. The compound of claim 14, wherein each occurrence of Y is independently OH, $COOR^7$, or COOH.
19. The compound of claim 14, wherein each occurrence of Y is independently OH or
5 COOH.
20. The compound of claim 13, wherein m is an integer ranging from 1 to 4 and t is 1.
21. A compound of the formula **Ib**



- 10 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:
- (a) each occurrence of m is independently an integer ranging from 1 to 9;
- (b) each occurrence of n is an independent integer ranging from 0 to 4;
- (c) x is 2, 3, or 4;
- (d) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, benzyl, or R^1 and R^2 and the carbon to which they are both
15 attached are taken together to form a (C_3-C_7) cycloalkyl group;
- (e) each occurrence of R^{11} and R^{12} and the carbon to which they are both attached are taken together to form a (C_3-C_7) cycloalkyl group;
- (f) Y^1 and Y^2 are independently (C_1-C_6) alkyl, OH, COOH, CHO, $COOR^7$, SO_3H ,

- (g) R^7 is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- 5 (h) each occurrence of R^8 is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (i) each occurrence of R^9 is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl; and
- (j) with the proviso that both occurrences of Y cannot both be CHO.
- 10 22. The compound of claim 21, wherein each occurrence of Y is independently OH, COOR⁷, or COOH.
23. The compound of claim 21, wherein each occurrence of Y is independently OH or COOH.
24. The compound of claim 22, wherein each occurrence of R^1 or R^2 is independently
15 (C₁-C₆)alkyl group.
25. The compound of claim 22, wherein each occurrence of R^1 or R^2 is methyl.

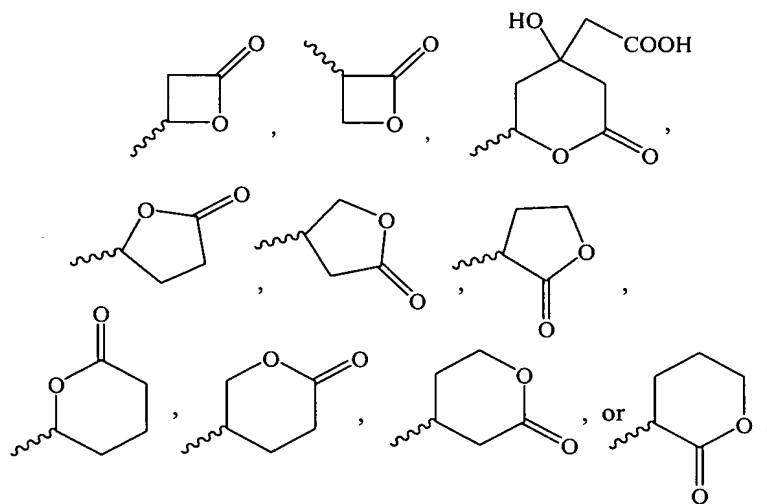
26. A compound of the formula **Ic**



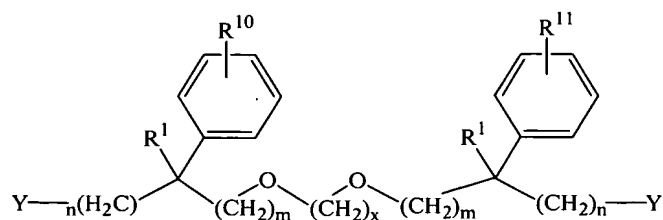
Ic

or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- 5 (a) each occurrence of m is an independent integer ranging from 1 to 9;
- (b) x is 2, 3, or 4;
- (c) V is



27. A compound of a formula **Id**:

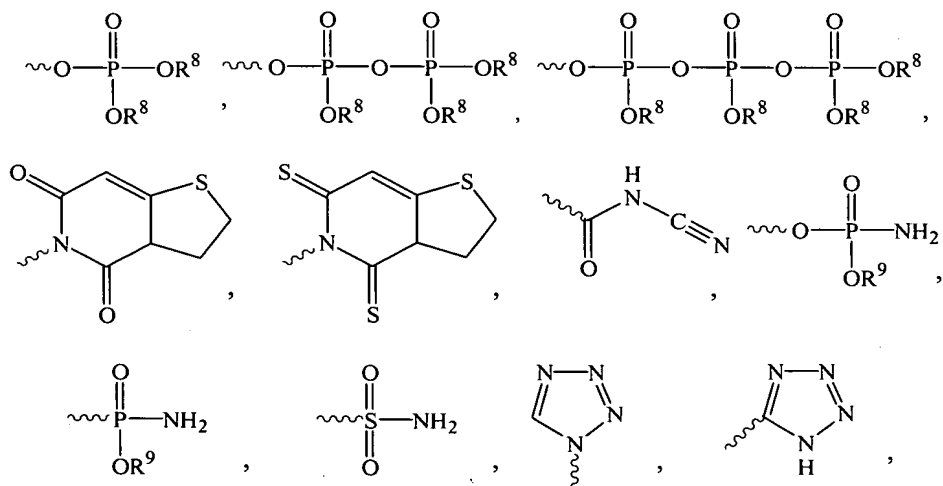


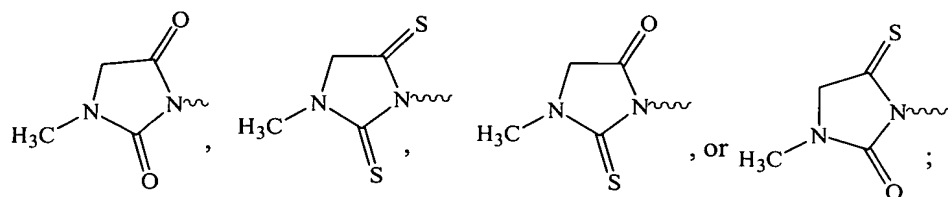
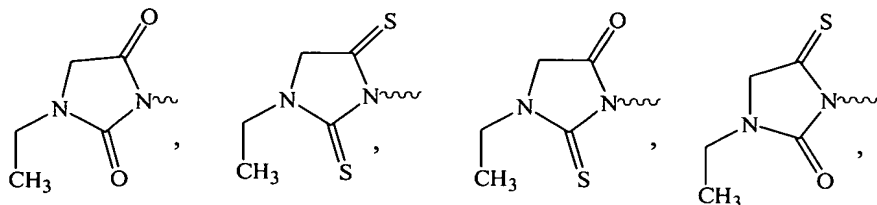
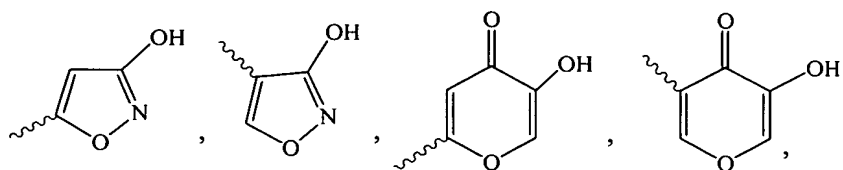
Id

or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein

- (a) each occurrence of m is independently an integer ranging from 1 to 9;
- 5 (b) each occurrence of n is an independent integer ranging from 0 to 4;
- (c) x is 2, 3, or 4;
- (d) each occurrence of R¹ is independently (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl;
- (e) each occurrence of Y is (C₁-C₆)alkyl, OH, COOH, CHO, COOR⁷, SO₃H,

10





- (f) R^7 is H, (C₁-C₄) alkyl, phenyl, or benzyl, and is substituted or unsubstituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- 5 (g) each occurrence of R^8 is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (h) each occurrence of R^9 is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl;
- 10 (i) R^{10} and R^{11} are independently H, halogen, (C₁-C₄)alkyl, (C₁-C₄)alkoxy, (C₆)aryl, (C₆)aryloxy, CN, or NO₂, N(R^7)₂.
28. A compound of the formula:
- I-114 4-[3-(3-carboxy-3-methyl-butoxy)-propoxy]-2,2-dimethyl-butyric acid,
- I-297 5-[2-(5-hydroxy-4,4-dimethyl-pentyloxy)-ethoxy]-2,2-dimethyl-pentan-1-ol,
- 15 IV-1 3-{3-[3-(2-Carboxy-2-methyl-propyl)-phenoxy]-phenyl}-2,2-dimethyl-propionic acid,
- IV-2 1-{3-[3-(2-hydroxy-2-methyl-propyl)-phenoxy]-phenyl}-2-methyl-propan-2-ol,

or a pharmaceutically acceptable salt, hydrate, solvate, clathrate, enantiomer, diastereomer, racemate, or a mixture of stereoisomer thereof.

29. A compound of the formula:
- I-1: 4-[2-(3-hydroxy-3-methyl-butoxy)-ethoxy]-2-methyl-butan-2-ol;
- I-2: 4-[2-(4-hydroxy-3,3-dimethyl-butoxy)-ethoxy]-2,2-dimethyl-butan-1-ol;
- I-3: 4-[2-(3-carboxy-3-methyl-butoxy)-ethoxy]-2,2-dimethyl-butyric acid;
- 5 I-4: 4-[2-(3,3-dimethyl-4-oxo-butoxy)-ethoxy]-2,2-dimethyl-butanal;
- I-5: 4-[2-(3-methoxycarbonyl-3-methyl-butoxy)-ethoxy]-2,2-dimethyl-butyric acid methyl ester;
- I-6: 2,2-dimethyl-4-[2-(3-methyl-3-phenoxy-carbonyl-butoxy)-ethoxy]-butyric acid phenyl ester;
- 10 I-7: benzyl-2,2,2',2'-tetramethyl-4,4'-[ethylenebis(oxadiyl)]dibutryrate;
- I-8: 2,2'-dimethyl-4,4'-[ethylenebis(oxadiyl)]dibutane-2-sulfonic acid;
- I-9: phosphoric acid mono-{3-[2-(3,3-dimethyl-butoxy)-ethoxy]-1,1-dimethyl-propyl} ester;
- I-10: 1-ethyl-3-(3-{2-[3-(4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*] pyridin-5-yl))-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl-4,6-dione;
- 15 I-11: 1-ethyl-3-(3-{2-[3-(4,6-dithio-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*] pyridin-5-yl))-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl-4,6-dithione;
- I-12: 2,2-dimethyl-4-[2-(3-methyl-3-cyanocarbonyl-butoxy)-ethoxy]-*N*-cyano-butamide;
- 20 I-13: phosphoradimic acid mono-(3-{2-[3-(amino-hydroxy-phosphoryloxy)-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl) ester;
- I-14: {1,1-dimethyl-3-[2-(3-methyl-3-phosphonamido-butoxy)-ethoxy]-propyl}-phosphonic acid amide;
- 25 I-15: 1-{3-[2-(3-methyl-3-((1*H*)-tetrazol-1-yl)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-1*H*-tetrazole;
- I-16: 5-{3-[2-(3-methyl-3-((1*H*)-tetrazol-5-yl)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-1*H*-tetrazole;
- 30 I-17: 1-ethyl-3-(3-{2-[3-(3-ethyl-2,5-dithio-imidazolidin-1-yl)-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-imidazolidine-2,4-dione;
- I-18: 1-ethyl-3-(3-{2-[3-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-imidazolidine-2,4-dione;

- I-19: 1-ethyl-3-(3-{2-[3-(3-ethyl-2-oxo-5-thioxo-imidazolidin-1-yl)-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-imidazolidine-2-thioxo-4-one;
- I-20: 1-ethyl-3-(3-{2-[3-(3-ethyl-5-oxo-2-thioxo-imidazolidin-1-yl)-3-methyl-butoxy]-ethoxy}-1,1-dimethyl-propyl)-imidazolidine-4-thioxo-2-one;
- 5 I-21: 1-{3-[2-(3-methyl-3-(3-methyl-isoxazol-5-yl)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-5-isoxazole;
- I-22: 1-{3-[2-(3-methyl-3-(3-methyl-isoxazol-4-yl)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-4-isoxazole;
- I-23: 3-{3-[2-(3-methyl-3-(5-hydroxy-pyran-3-yl-4-one)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- 10 I-24: 2-{3-(2-[3-methyl-3-(5-hydroxy-pyran-2-yl-4-one)-butoxy]-ethoxy)-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- I-25: 2-{3-[2-(3-methyl-3-(5-hydroxy-pyran-3-yl-4-one)-butoxy)-ethoxy]-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- 15 I-26: 1-(2-tetrahydropyranyloxy)-2-{2-[2-(2-tetrahydropyranyloxy)-ethoxy]-ethoxy} ethane;
- I-27: 4-{2-[2-(4-oxetan-2-one)-propoxy-ethoxy]-ethyl}-oxetan-2-one;
- I-28: 3-{2-[2-(3-oxetan-2-one)-propoxy-ethoxy]-ethyl}-oxetan-2-one;
- I-29: 5-{2-[2-(5-dihydro-furan-2-one)-propoxy-ethoxy]-ethyl}-dihydro-furan-2-one;
- 20 I-30: 4-{2-[2-(4-dihydro-furan-2-one)-propoxy-ethoxy]-ethyl}-dihydro-furan-2-one;
- I-31: 3-{2-[2-(3-dihydro-furan-2-one)-propoxy-ethoxy]-ethyl}-dihydro-furan-2-one;
- 25 I-32: 2-{2-[2-(2-{2-[4-(carboxy-methyl)-4-hydroxy-6-oxo-tetrahydro-pyran-2-yl]-ethoxy}-ethoxy)-ethyl]-4-hydroxy-6-oxo-tetrahydro-pyran-4-yl}-acetic acid;
- I-33: 2,2'-[ethylenebis(oxadiyl)]diethane-6-d-valerolactone;
- I-34: 2,2'-[ethylenebis(oxadiyl)]diethane-5-d-valerolactone;
- I-35: 2,2'-[ethylenebis(oxadiyl)]diethane-4-d-valerolactone;
- 30 I-36: 2,2'-[ethylenebis(oxadiyl)]diethane-3-d-valerolactone;
- I-37: 3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanol;
- I-38: 3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanoic acid;
- I-39: 3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanal;
- I-40: methyl-3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanoate;

- I-41: phenyl-3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanoate;
 I-42: benzyl-3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentanoate;
 I-43: 4,4,4',4'-tetramethyl-6,6'-[ethylenebis(oxadiyl)]dihexanol;
 I-44: 4,4,4',4'-tetramethyl-6,6'-[ethylenebis(oxadiyl)]dihexanoic acid;
 5 I-45: 4,4,4',4'-tetramethyl-6,6'-[ethylenebis(oxadiyl)]dihexanal;
 I-46: methyl-4,4,4',4'-tetramethyl-6,6'-[ethylene-(oxadiyl)]-dihexanoate;
 I-47: phenyl-4,4,4',4'-tetramethyl-6,6'-[ethylenebis(oxadiyl)]dihexanoate;
 I-48: benzyl-4,4,4',4'-tetramethyl-6,6'-[ethylenebis(oxadiyl)]dihexanoate;
 I-49: 2,2,2',2'-tetramethyl-4,4'-[ethylenebis(oxadiyl)]dibutane sulfonic acid;
 10 I-50: phosphoric acid mono-{4-[2-(3,3-dimethyl-4-phosphonooxy-butoxy)-ethoxy]-2,2-dimethyl-butyl}ester;
 I-51: 5-{4-[2-(3,3-dimethyl-4-(5-(3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dioxo)pentyloxy)-ethoxy]-2,2-dimethyl-butyl} - 3,3a-dihydro 3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dione;
 15 I-52: 5-{4-[2-(3,3-dimethyl-4-(5-(3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dithio)pentyloxy)-ethoxy]-2,2-dimethyl-butyl} - 3,3a-dihydro 3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dithione;
 I-53: 5-[2-(3,3-dimethyl-4-cyanocarbamoyl-butoxy)-ethoxy]-3,3-dimethyl-*N*-cyano-pentanoic acid-amide;
 20 I-54: phosphoramidic acid mono-(4-{2-[4-(amino-hydroxy-phosphoryloxy)-3,3-dimethyl-butoxy]-ethoxy}-2,2-dimethyl-butyl) ester;
 I-55: {4-[2-(3,3-dimethyl-4-phosphonamido-butoxy)-ethoxy]-2,2-dimethyl-butyl}-phosphonamide;
 I-56: 1-{4-[2-(3,3-dimethyl-5-{1*H*-tetrazol-1-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-1*H*-tetrazole;
 25 I-57: 5-{4-[2-(3,3-dimethyl-5-{1*H*-tetrazol-5-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-1*H*-tetrazole;
 I-58: 5-{4-[2-(3,3-dimethyl-5-{3-hydroxy-isoxazol-5-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-3-hydroxy-isoxazole;
 30 I-59: 4-{4-[2-(3,3-dimethyl-5-{3-hydroxy-isoxazol-4-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-3-hydroxy-isoxazole;
 I-60: 2-{4-[2-(3,3-dimethyl-5-{5-hydroxy-pyran-4-oxo-3-yl}-butyloxy)-ethoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;

- I-61: 2-{4-[2-(3,3-dimethyl-5-{5-hydroxy-pyran-4-oxo-2-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- I-62: 3-{4-[2-(3,3-dimethyl-5-{5-hydroxy-pyran-4-oxo-3-yl}-butoxy)-ethoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- 5 I-63: 1-ethyl-3-(4-{2-[4-(3-ethyl-2,5-dithioxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-ethoxy}-2,2-dimethyl-butyl)-imidazolidine-2,4-dione;
- I-64: 1-ethyl-3-(4-{2-[4-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-ethoxy}-2,2-dimethyl-butyl)-imidazolidine-2,4-dione;
- I-65: 1-ethyl-3-(4-{2-[4-(3-ethyl-2-thioxo-4-oxo-imidazolidin-1-yl)-3,3-dimethyl-10 -butoxy]-ethoxy}-2,2-dimethyl-butyl)-imidazolidine-2-thioxo-4-one;
- I-66: 1-ethyl-3-(4-{2-[4-(3-ethyl-2-oxo-4-thioxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-ethoxy}-2,2-dimethyl-butyl)-imidazolidine-2-oxo-4-thione;
- I-67: 3,3,3',3'-tetramethyl-5,5'-[ethylenebis(oxadiyl)]dipentane sulfonic acid;
- I-68: phosphoric acid mono-{1,1-dimethyl-3-[2-(3-methyl-3-phosphonooxy-15 -butoxy)-ethoxy]-propyl} ester;
- I-69: 5-(5-{2-[3,3-dimethyl-5-(4,6-dioxo-2,3,3a,6-tetrahydro-4h-thieno-[3,2-c]pyridin-5-yl)-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-3,3a-dihydro-2H-thieno[3,2-c]pyridine-4,6-dione;
- 20 I-70: 5-(5-{2-[3,3-dimethyl-5-(4,6-dithioxo-2,3,3a,6-tetrahydro-4h-thieno[3,2-c]pyridin-5-yl)-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-3,3a-dihydro-2H-thieno[3,2-c]pyridine-4,6-dione;
- I-71: 6-[2-(3,3-dimethyl-5-cyano-carbamoyl-butoxy)-ethoxy]-4,4-dimethyl-N-cyano-hexanoic acid-amide;
- I-72: phosphoramidic acid mono-(5-{2-[5-(amino-hydroxy-phosphoryloxy)-3,3-dimethyl-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl) ester;
- 25 I-73: {5-[2-(3,3-dimethyl-5-phosphonamido-pentyloxy)-ethoxy]-3,3-dimethyl-pentyl}-phosphonamide;
- I-74: 1-{[2-(3,3-dimethyl-5-tetrazol-1-yl-pentyloxy)-ethoxy]-3,3-dimethyl-pentyl}-1H-tetrazole;
- 30 I-75: 5-{5-[2-(3,3-dimethyl-5-tetrazol-1-yl-pentyloxy)-ethoxy]-3,3-dimethyl-pentyl}-1H-tetrazole;
- I-76: 5-{5-[2-(3,3-dimethyl-5-{3-hydroxy-isoxazol-5-yl}-pentyloxy)-ethoxy]-3,3-dimethyl-pentyl}-isoxazol-3-ol;

- I-77: 4-{5-[2-(3,3-dimethyl-5-{3-hydroxy-isoxazol-4-yl}-pentyloxy)-ethoxy]-3,3-dimethyl-pentyl}-isoxazol-3-ol;
- I-78: 3-{5-[2-(5-{5-hydroxy-4-oxo-4*H*-pyran-2-yl}-3,3-dimethyl-pentyloxy)-3,3-dimethyl-pentyl]-5-hydroxy-pyran-4-one};
- 5 I-79: 2-{5-[2-(5-{5-hydroxy-4-oxo-4*H*-pyran-2-yl}-3,3-dimethyl-pentyloxy)-3,3-dimethyl-pentyl]-5-hydroxy-pyran-4-one};
- I-80: 3-{5-[2-(5-{5-hydroxy-4-oxo-4*H*-pyran-3-yl}-3,3-dimethyl-pentyloxy)-3,3-dimethyl-pentyl]-5-hydroxy-pyran-4-one};
- I-81: 1-ethyl-3-(5-{2-[5-(3-ethyl-2,5-dithioxo-imidazolidin-1-yl)-3,3-dimethyl-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-imidazolidine-2,4-dione;
- 10 I-82: 1-ethyl-3-(5-{2-[5-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-3,3-dimethyl-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-imidazolidine-2,4-dione;
- I-83: 1-ethyl-3-(5-{2-[5-(1-ethyl-2-thioxo-5-oxo-imidazolidin-3-yl)-3,3-dimethyl-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-imidazolidine-2-thioxo-4-one;
- 15 I-84: 1-ethyl-3-(5-{2-[5-(1-ethyl-2-oxo-5-thioxo-imidazolidin-3-yl)-3,3-dimethyl-pentyloxy]-ethoxy}-3,3-dimethyl-pentyl)-imidazolidine-2-oxo-4-thione;
- I-85: 4-[4-(3-hydroxy-3-methyl-butoxymethyl)-benzyloxy]-2-methyl-butan-2-ol;
- I-86: 4-[4-(4-hydroxy-3,3-dimethyl-butoxymethyl)-benzyloxy]-2,2-dimethyl-butan-1-ol;
- 20 I-87: 4-[4-(3-carboxyl-3,3-dimethyl-butoxymethyl)-benzyloxy]-2,2-dimethyl-butyric acid;
- I-88: 4-[4-(4-hydroxy-3,3-dimethyl-butoxymethyl)-benzyloxy]-2,2-dimethyl-butanal;
- I-89: 4-[4-(3,3-dimethyl-3-carboxymethyl-butoxymethyl)-benzyloxy]-2,2-dimethyl-butyric acid methyl ester;
- 25 I-90: 2,2-dimethyl-4-[4-(3-methyl-3-phenoxy-carbonyl-butoxymethyl)-benzyloxy]-butyric acid phenyl ester;
- I-91: 4-[4-(3-benzyloxy-carbonyl-3-methyl-butoxymethyl)-benzyloxy]-2,2-dimethyl-butyric acid benzyl ester;
- 30 I-92: 2,2'-dimethyl-4,4'-[vinylbis(oxadiyl)]dibutane-2-sulfonic acid;
- I-93: phosphoric acid mono-{1,1-dimethyl-3-[4-(3-methyl-3-phosphonoxy-butoxymethyl)-benzyloxy]-propyl} ester;
- I-94: 2,2'-dimethyl-4,4'-[vinylbis(oxadiyl)]dibutanol;
- I-95: 4-[2-(4-hydroxy-3,3-dimethyl-butoxy)-vinyl]-2,2-dimethyl-butan-1-ol;

- I-96: 4-[2-(3-carboxyl-3,3-dimethyl-butoxy)-vinyl-2,2-dimethyl-butanoic acid];
- I-97: 4-[2-(4-hydroxy-3,3-dimethyl-butoxy)-vinyl-2,2-dimethyl-butanal];
- I-98: 4-[2-(3,3-dimethyl-3-carboxymethyl-3-butoxy)-vinyl-2,2-dimethyl-butanoic acid methyl ester];
- 5 I-99: 2,2-dimethyl-4-[2-(3-methyl-3-phenoxy-carbonyl-butoxy)-vinyl-2,2-dimethyl-butanoic acid phenyl ester];
- I-100: 2,2-dimethyl-4-[2-(3-methyl-3-benzoyloxy-carbonyl-butoxy)-vinyl-2,2-dimethyl-butanoic acid benzyl ester];
- I-101: 4-[2-(3,3-dimethyl-3-sulfonyl-butoxy)-vinyl-2-methyl-butane-2-sulfonic acid];
- 10 I-102: phosphoric acid mono-{3-[2-(3,3-dimethyl-butoxy)-vinyl-1,1-dimethyl-propyl]} ester;
- I-103: 4-[4-(3-hydroxy-3-methyl-butoxy)-phenoxy]-2-methyl-butane-2-ol;
- I-104: 4-[4-(4-hydroxy-3,3-dimethyl-butoxy)-phenoxy]-2,2-dimethyl-butane-1-ol;
- 15 I-105: 4-[4-(3-carboxyl-3,3-dimethyl-butoxy)-phenoxy]-2,2-dimethyl-butanoic acid;
- I-106: 4-[4-(4-hydroxy-3,3-dimethyl-butoxy)-phenoxy]-2,2-dimethyl-butanal;
- I-107: 4-[4-(3,3-dimethyl-3-carboxymethyl-butoxy)-phenoxy]-2,2-dimethyl-butanoic acid methyl ester;
- I-108: 2,2-dimethyl-4-[4-(3-methyl-3-phenoxy-carbonyl-butoxy)-phenoxy]-2,2-dimethyl-butanoic acid phenyl ester;
- 20 I-109: 4-[4-(3-benzoyloxy-carbonyl-3-methyl-butoxy)-phenoxy]-2,2-dimethyl-butanoic acid benzyl ester;
- I-110: 4-[4-(3,3-dimethyl-3-sulfonyl-butoxy)-phenoxy]-2-methyl-butane-2-sulfonic acid;
- 25 I-111: 4-[4-(3,3-dimethyl-3-oxophosphono-butoxy)-phenoxy]-2-methyl-butane-2-oxophosphoric acid;
- I-112: 4-[3-(3-hydroxy-3-methyl-butoxy)-propoxy]-2-methyl-butane-2-ol;
- I-113: 4-[3-(4-hydroxy-3,3-dimethyl-butoxy)-propoxy]-2,2-dimethyl-butane-1-ol;
- I-114: 4-[3-(3-carboxyl-3-methyl-butoxy)-propoxy]-2,2-dimethyl-butanoic acid;
- 30 I-115: 4-[3-(3,3-dimethyl-4-oxo-butoxy)-propoxy]-2,2-dimethyl-butanal;
- I-116: 4-[3-(3-methoxycarbonyl-3-methyl-butoxy)-propoxy]-2,2-dimethyl-butanoic acid methyl ester;
- I-117: 4-[3-(3,3-dimethyl-4-oxo-5-phenyl-pentyloxy)-propoxy]-2,2-dimethyl-butanoic acid phenyl ester;

- I-118: 4-[3-(3-benzyloxycarbonyl-3-methyl-butoxy)-propoxy]-2,2-dimethyl-butylric acid benzyl ester;
- I-119: 2-methyl-4-[3-(3-methyl-3-sulfo-butoxy)-propoxy]-butane-2-sulfonic acid;
- I-120: phosphoric acid mono-{1,1-dimethyl-3-[3-(3-methyl-3-phosphonooxy-butoxy)-propoxy]-propyl} ester;
- I-121: 1-ethyl-3-(3-{3-[3-(4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl))-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl-4,6-dione;
- I-122: 1-ethyl-3-(3-{3-[3-(4,6-dithioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl))-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-4,6-dioxo-2,3,3a,6-tetrahydro-4*H*-thieno[3,2-*c*]pyridin-5-yl-4,6-dithione;
- I-123: 2,2-dimethyl-4-[3-(3-methyl-3-cyano-carbamoyl-butoxy)-propoxy]-*N*-cyano-butylric acid-amide;
- I-124: phosphoramidic acid mono-(3-{3-[3-(amino-hydroxy-phosphoryloxy)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl) ester;
- I-125: {1,1-dimethyl-3-[3-(3-(methyl-3-phosponamido-butoxy)-propoxy)-propyl]-phosphonamide};
- I-126: 1-{3-[3-(3-methyl-3-tetrazol-1-yl-butoxy)-propoxy]-1,1-dimethyl-propyl}-1*H*-tetrazole;
- I-127: 5-{3-[3-(3-methyl-3-tetrazol-5-yl-butoxy)-propoxy]-1,1-dimethyl-propyl}-(1*H*)-tetrazole;
- I-128: 5-{3-[3-(3-methyl-3-(3-methyl-isoxazol-5-yl)-butoxy)-propoxy]-1,1-dimethyl-propyl}-3-methyl-isoxazole;
- I-129: 4-{3-[3-(3-methyl-3-(3-methyl-isoxazol-4-yl)-butoxy)-propoxy]-1,1-dimethyl-propyl}-3-methyl-isoxazole;
- I-130: 3-{3-[3-(3-methyl-3-(5-hydroxy-pyran-3-yl-4-one)-butoxy)-propoxy]-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- I-131: 2-{3-[3-(3-methyl-3-(5-hydroxy-pyran-2-yl-4-one)-butoxy)-propoxy]-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- I-132: 3-{3-[3-(3-methyl-3-(5-hydroxy-pyran-2-yl-4-one)-butoxy)-propoxy]-1,1-dimethyl-propyl}-5-hydroxy-pyran-4-one;
- I-133: 1-ethyl-3-(3-{3-[3-(3-ethyl-2,5-dithioxo-imidazolidin-1-yl)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-imidazolidine-2,4-dithione;

- I-134: 1-ethyl-3-(3-{3-[3-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-imidazolidine-2,4-dithione;
- I-135: 1-ethyl-3-(3-{3-[3-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-imidazolidine-2,4-dione;
- 5 I-136: 1-ethyl-3-(3-{3-[3-(3-ethyl-2-thioxo-5-oxo-imidazolidin-1-yl)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-imidazolidine-2-thioxo-4-one;
- I-137: 1-ethyl-3-(3-{3-[3-(3-ethyl-2-oxo-5-thioxo-imidazolidin-1-yl)-3-methyl-butoxy]-propoxy}-1,1-dimethyl-propyl)-imidazolidine-2-oxo-4-thione;
- I-138: 1-(2-tetrahydropyranyloxy)-2-{2-[2-(2-tetrahydropyranyloxy)-ethoxy]-propoxy} ethane;
- 10 I-139: 4-{2-[3-(oxetan-4-yl-2-one)-propoxy-propoxy]-ethyl}-oxetan-2-one;
- I-140: 3-{2-[3-(oxetan-3-yl-2-one)-propoxy-propoxy]-ethyl}-oxetan-2-one;
- I-141: 5-{2-[3-(dihydro-furan-5-yl-2-one)-propoxy-propoxy]-ethyl}-dihydro-furan-2-one;
- 15 I-142: 4-{2-[3-(dihydro-furan-4-yl-2-one)-propoxy-propoxy]-ethyl}-dihydro-furan-2-one;
- I-143: 3-{2-[3-(dihydro-furan-3-yl-2-one)-propoxy-propoxy]-ethyl}-dihydro-furan-2-one;
- I-144: [2-(2-{3-[2-(4-carboxymethyl-4-hydroxy-6-oxo-tetrahydro-pyran-2-yl)-ethoxy]-propoxy}-ethyl)-4-hydroxy-6-oxo-tetrahydro-pyran-4-yl]-acetic acid;
- 20 I-145: 2,2'-[propylenebis(oxadiyl)]diethane-6-d-valerolactone;
- I-146: 2,2'-[propylenebis(oxadiyl)]diethane-5-d-valerolactone;
- I-147: 2,2'-[propylenebis(oxadiyl)]diethane-4-d-valerolactone;
- 25 I-148: 2,2'-[propylenebis(oxadiyl)]diethane-3-d-valerolactone;
- I-149: 5-[3-(5-hydroxy-3,3-dimethyl-pentyloxy)-propoxy]-3,3-dimethyl-pentan-1-ol;
- I-150: 5-[3-(4-carboxy-3,3-dimethyl-butoxy)-propoxy]-3,3-dimethyl-pentanoic acid;
- 30 I-151: 5-[3-(3,3-dimethyl-5-oxo-pentyloxy)-propoxy]-3,3-dimethyl-pentanal;
- I-152: 5-[3-(4-methoxycarbonyl-3,3-dimethyl-butoxy)-propoxy]-3,3-dimethyl-pentanoic acid methyl ester;
- I-153: 5-[3-(3,3-dimethyl-4-phenoxy-carbonyl-butoxy)-propoxy]-3,3-dimethyl-pentanoic acid phenyl ester;

- I-154: 5-[3-(4-benzyloxycarbonyl-3,3-dimethyl-butoxy)-propoxy]-3,3-dimethyl-pentanoic acid benzyl ester;
- I-155: 4-[3-(3,3-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-butane-1-sulfonic acid;
- 5 I-156: phosphoric acid mono-{4-[3-(3,3-dimethyl-4-phosphonooxy-butoxy)-propoxy]-2,2-dimethyl-butyl} ester;
- I-157: 5-{4-[3-(3,3-dimethyl-4-(5-(3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dioxo) pentyloxy)-propoxy]-2,2-dimethyl-butyl} - 3,3a-dihydro-3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dione;
- 10 I-158: 5-{4-[3-(3,3-dimethyl-4-(5-(3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dithio) pentyloxy)-propoxy]-2,2-dimethyl-butyl} - 3,3a-dihydro-3,3a-dihydro-2*H*-thieno-[3,2-*c*]pyridine-4,6-dithione;
- I-159: 5-[3-(3,3-dimethyl-4-cyano-carbamoyl-butoxy)-propoxy]-3,3-dimethyl-*n*-cyano- pentanoic acid-amide;
- 15 I-160: phosphoramidic acid mono-(5-{2-[4-(amino-hydroxy-phosphoryloxy)- 3,3-dimethyl-butoxy]-ethoxy}-2,2-dimethyl-pentyl) ester;
- I-161: {4-[3-(3,3-dimethyl-4-phosponamido-butoxy)-propoxy]-2,2-dimethyl-butyl}-phosphonamide;
- I-162: 1-{4-[3-(3,3-dimethyl-5-(1*H*-tetrazol-1-yl)-butoxy)-propoxy]-2,2-dimethyl-butyl}-1*H*-tetrazole;
- 20 I-163: 5-{4-[3-(3,3-dimethyl-5-(1*H*-tetrazol-5-yl)-butoxy)-propoxy]-2,2-dimethyl-butyl}-1*H*-tetrazole;
- I-164: 5-{4-[3-(3,3-dimethyl-5-(3-hydroxy-isoxazol-5-yl)-butoxy)-propoxy]-2,2-dimethyl-butyl}-3-hydroxy-isoxazole;
- 25 I-165: 4-{4-[3-(3,3-dimethyl-5-(3-hydroxy-isoxazol-4-yl)-butoxy)-propoxy]-2,2-dimethyl-butyl}-3-hydroxy-isoxazole;
- I-166: 2-{4-[3-(3,3-dimethyl-4-{5-hydroxy-pyran-4-oxo-3-yl}-butyloxy)-propoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- I-167: 2-{4-[3-(3,3-dimethyl-4-{5-hydroxy-pyran-4-oxo-2-yl}-butyloxy)-propoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- 30 I-168: 3-{4-[3-(3,3-dimethyl-4-{5-hydroxy-pyran-4-oxo-3-yl}-butyloxy)-propoxy]-2,2-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- I-169: 1-ethyl-3-(4-{3-[4-(3-ethyl-2,5-dithio-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-propoxy}-2,2-dimethyl-butyl)-imidazolidine- 2,4-dione;

- I-170: 1-ethyl-3-(4-{3-[4-(3-ethyl-2,5-oxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-propoxy}-2,2-dimethyl-butyl)-imidazolidine-2,4-dione;
- I-171: 1-ethyl-3-(4-{3-[4-(3-ethyl-2-thioxo-5-oxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-propoxy}-2,2-dimethyl-butyl)-imidazolidine-2-thioxo-4-one;
- 5 I-172: 1-ethyl-3-(4-{3-[4-(3-ethyl-2-oxo-5-thioxo-imidazolidin-1-yl)-3,3-dimethyl-butoxy]-propoxy}-2,2-dimethyl-butyl)-imidazolidine-2-oxo-4-thione;
- I-173: 5-[3-(4-hydroxy-4-methyl-pentyloxy)-propoxy]-2-methyl-pentan-2-ol;
- I-174: 5-[3-(5-hydroxy-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentan-1-ol;
- 10 I-175: 5-[3-(4-carboxy-4-methyl-pentyloxy)-propoxy]-2,2-dimethyl-pentanoic acid;
- I-176: 5-[3-(4,4-dimethyl-5-oxo-pentyloxy)-propoxy]-2,2-dimethyl-pentanal;
- I-177: 5-[3-(4-methoxycarbonyl-4-methyl-pentyloxy)-propoxy]-2,2-dimethyl-pentanoic acid methyl ester;
- 15 I-178: 5-[3-(4,4-dimethyl-5-oxo-6-phenyl-hexyloxy)-propoxy]-2,2-dimethyl-pentanoic acid phenyl ester;
- I-179: 4-{3-[1-(2-benzyloxycarbonyl-2-methyl-propyl)-vinyl]-propoxy}-2,2-dimethyl-pent-4-enoic acid benzyl ester;
- I-180: 2-methyl-5-[3-(4-methyl-4-sulfo-pentyloxy)-propoxy]-pentane-2-sulfonic acid;
- 20 I-181: phosphoric acid mono-{1,1-dimethyl-4-[3-(4-methyl-4-phosphonoxy-pentyloxy)-propoxy]-butyl} ester;
- I-182: 5-(5-{3-[3,3-dimethyl-5-(4,6-dioxo-2,3,3a,6-tetrahydro-4h-thieno-[3,2-c]pyridin-5-yl)-pentyloxy]-propoxy}-3,3-dimethyl-pentyl)-3,3a-dihydro-2H-thieno[3,2-c]pyridine-4,6-dione;
- 25 I-183: 5-(5-{3-[3,3-dimethyl-5-(4,6-dithio-2,3,3a,6-tetrahydro-4h-thieno-[3,2-c]pyridin-5-yl)-pentyloxy]-propoxy}-3,3-dimethyl-pentyl)-3,3a-dihydro-2H-thieno[3,2-c]pyridine-4,6-dithione;
- I-184: 5-{3-[4-N-cyano-carbamoyl-4-methyl-pentyloxy]-propoxy}-2,2-dimethyl-N-cyano-pentanoic acid-amide;
- 30 I-185: phosphoramidic acid mono-[3-(3-{1-[2-(amino-hydroxy-phosphoryloxy)-2-methyl-propyl]-vinyl]-propoxy)-1,1-dimethyl-but-3-enyl] ester;
- I-186: {1,1-dimethyl-4-[3-(4-methyl-4-phosphonamido-pentyloxy)-propoxy]-butyl}-phosphonamide;

- I-187: 1-{4-[3-(4-{1*H*-tetrazol-1-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-1*H*-tetrazol;
- I-188: 5-{4-[3-(4-{1*H*-tetrazol-5-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-1*H*-tetrazole;
- 5 I-189: 5-{4-[3-(4-{3-methyl-isoxazol-5-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-3-methyl-isoxazole;
- I-190: 4-{4-[3-(4-{3-methyl-isoxazol-4-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-3-methyl-isoxazole;
- I-191: 3-{4-[3-(4-{5-hydroxy-4-oxo-pyran-3-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- 10 I-192: 2-{4-[3-(4-{5-hydroxy-4-oxo-pyran-2-yl}-4-methyl-pentyloxy)-propoxy]-1,1-dimethyl-butyl}-5-hydroxy-pyran-4-one;
- I-193: 1-ethyl-3-(4-{3-[4-(3-ethyl-2,5-dithioxo-imidazolidin-1-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-butyl)-imidazolidine-2,4-dione;
- 15 I-194: 1-ethyl-3-(4-{3-[4-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-butyl)-imidazolidine-2,4-dione;
- I-195: 1-ethyl-3-(4-{3-[4-(3-ethyl-5-oxo-2-thioxo-imidazolidin-1-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-butyl)-imidazolidine-4-oxo-2-thione;
- I-196: 1-ethyl-3-(4-{3-[4-(3-ethyl-2-oxo-5-thioxo-imidazolidin-1-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-butyl)-imidazolidine-2-oxo-4-thione;
- 20 I-197: 2-{3-[3-(3-{tetrahydro-pyran-2-yl}-propoxy)-propoxy]-propoxy}-tetrahydro-pyran;
- I-198: 4-{3-[3-(3-{oxetan-2-one-4-yl}propoxy)-propoxy]-propyl}-oxetan-2-one;
- I-199: 3-{3-[3-(3-{oxetan-2-one-3-yl}propoxy)-propoxy]-propyl}-oxetan-2-one;
- 25 I-200: 5-{3-[3-(3-{dihydro-furan-2-one-5-yl}-propoxy)-propoxy]-propyl}-dihydro-furan-2-one;
- I-201: 4-{3-[3-(3-{dihydro-furan-2-one-4-yl}-propoxy)-propoxy]-propyl}-dihydro-furan-2-one;
- I-202: 3-{3-[3-(3-{dihydro-furan-2-one-3-yl}-propoxy)-propoxy]-propyl}-dihydro-furan-2-one;
- 30 I-203: {2-[3-(3-{3-[4-carboxymethyl-4-hydroxy-6-oxo-tetrahydro-pyran-2-yl]-propoxy}-propoxy)-propyl]-4-hydroxy-6-oxo-tetrahydro-pyran-4-yl}-acetic acid;

- I-204: 6-{3-[3-(3-{dihydro-pyran-2-one-6-yl}-propoxy)-propoxy]-propyl}-dihydro-pyran-2-one;
- I-205: 5-{3-[3-(3-{dihydro-pyran-2-one-5-yl}-propoxy)-propoxy]-propyl}-dihydro-pyran-2-one;
- 5 I-206: 4-{3-[3-(3-{dihydro-pyran-2-one-4-yl}-propoxy)-propoxy]-propyl}-dihydro-pyran-2-one;
- I-207: 3-{3-[3-(3-{dihydro-pyran-2-one-3-yl}-propoxy)-propoxy]-propyl}-dihydro-pyran-2-one;
- I-208: 6-[3-(6-hydroxy-4,4-dimethyl-hexyloxy)-propoxy]-3,3-dimethyl-hexan-1-ol;
- 10 I-209: 6-[3-(5-carboxy-4,4-dimethyl-pentyloxy)-propoxy]-3,3-dimethyl-hexanoic acid;
- I-210: 6-[3-(4,4-dimethyl-6-oxo-hexyloxy)-propoxy]-3,3-dimethyl-hexanal;
- I-211: 6-[3-(5-methoxycarbonyl-4,4-dimethyl-pentyloxy)-propoxy]-3,3-dimethyl-hexanoic acid methyl ester;
- 15 I-212: 6-[3-(4,4-dimethyl-5-phenoxy-carbonyl-pentyloxy)-propoxy]-3,3-dimethyl-hexanoic acid cyclohexyl ester;
- I-213: 6-[3-(5-benzyloxycarbonyl-4,4-dimethyl-pentyloxy)-propoxy]-3,3-dimethyl-hexanoic acid benzyl ester;
- I-214: 5-[3-(4,4-dimethyl-5-sulfo-pentyloxy)-propoxy]-2,2-dimethyl-pentane-1-sulfonic acid;
- 20 I-215: 5-[3-(4,4-dimethyl-5-phospho-pentyloxy)-propoxy]-2,2-dimethyl-pentane-1-phosphonic acid;
- I-216: 5-{5-[3-(5-{3,3a-dihydro-2*H*-thieno[3,2-*c*]pyridine-4,6-dione-5-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-3-pentyl}-3,3a-dihydro-2*H*-thieno[3,2-*c*]pyridine-4,6-dione;
- 25 I-217: 5-{5-[3-(5-{3,3a-dihydro-2*H*-thieno[3,2-*c*]pyridine-4,6-dithione-5-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-3-pentyl}-3,3a-dihydro-2*H*-thieno[3,2-*c*]pyridine-4,6-dithione;
- I-218: 6-[3-(5-cyano-carbamoyl-4,4-dimethyl-pentyloxy)-propoxy]-3,3-dimethyl-N-cyano-hexanoic acid-amide;
- 30 I-219: phosphoramidic acid mono-(6-{2-[5-(amino-hydroxy-phosphoryloxy)-4,4-dimethyl-pentyloxy]-ethoxy}-2,2-dimethyl-hexyl) ester;
- I-220: {5-[3-(4,4-dimethyl-5-phosphonamido-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-phosphonamide;

- I-221: 1-{5-[3-(5-{1*H*-tetrazol-1-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-1*H*-tetrazole;
- I-222: 5-{5-[3-(5-{1*H*-tetrazol-5-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-1*H*-tetrazole;
- 5 I-223: 5-{5-[3-(5-{3-hydroxy-isoxazol-5-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-3-hydroxy-isoxazole;
- I-224: 4-{5-[3-(5-{3-hydroxy-isoxazol-4-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-3-hydroxy-isoxazole;
- I-225: 2-{5-[3-(5-{5-hydroxy-4-oxo-pyran-3-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-5-hydroxy-pyran-4-one;
- 10 I-226: 2-{5-[3-(5-{5-hydroxy-4-oxo-pyran-2-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-5-hydroxy-pyran-4-one;
- I-227: 3-{5-[3-(5-{5-hydroxy-4-oxo-pyran-3-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-pentyl}-5-hydroxy-pyran-4-one;
- 15 I-228: 3-{4-[3-(5-{3-ethyl-2,5-dithioxo-imidazolidin-1-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-butyl}-1-ethyl-imidazolidine-2,4-dithione;
- I-229: 3-{4-[3-(5-{3-ethyl-2,5-dioxo-imidazolidin-1-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-butyl}-1-ethyl-imidazolidine-2,4-dione;
- 20 I-230: 3-{4-[3-(5-{3-ethyl-5-oxo-2-thioxo-imidazolidin-1-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-butyl}-1-ethyl-imidazolidine-4-oxo-2-thione;
- I-231: 3-{4-[3-(5-{3-ethyl-5-oxo-2-thioxo-imidazolidin-1-yl}-4,4-dimethyl-pentyloxy)-propoxy]-2,2-dimethyl-butyl}-1-ethyl-imidazolidine-2-oxo-4-thione;
- 25 I-232: 6-[3-(5-hydroxy-5-methyl-hexyloxy)-propoxy]-2-methyl-hexan-2-ol;
- I-233: 6-[3-(6-hydroxy-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexan-1-ol;
- I-234: 6-[3-(5-carboxy-5-methyl-hexyloxy)-propoxy]-2,2-dimethyl-hexanoic acid;
- I-235: 6-[3-(5,5-dimethyl-6-oxo-hexyloxy)-propoxy]-2,2-dimethyl-hexanal;
- 30 I-236: 6-[3-(5-methoxycarbonyl-5-methyl-hexyloxy)-propoxy]-2,2-dimethyl-hexanoic acid methyl ester;
- I-237: 6-[3-(5,5-dimethyl-6-oxo-7-phenyl-heptyloxy)-propoxy]-2,2-dimethyl-hexanoic acid phenyl ester;

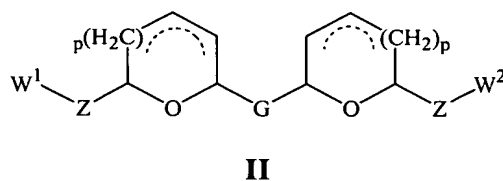
- I-238: 6-[3-(5-benzoyloxycarbonyl-5-methyl-hexyloxy)-propoxy]-2,2-dimethyl-hexanoic acid benzyl ester;
- I-239: 2-methyl-6-[3-(5-methyl-5-sulfo-hexyloxy)-propoxy]-hexane-2-sulfonic acid;
- 5 I-240: phosphoric acid mono-{1,1-dimethyl-5-[3-(5-methyl-5-phosphonooxy-hexyloxy)-propoxy]- pentyl} ester;
- I-241: 5-(5-{3-[4-(4,6-dioxo-hexahydro-thieno[3,2-c]pyridin-5-yl)-4- methyl-pentyloxy]-propoxy}-1,1-dimethyl-pentyl)-3,3a-dihydro-2*H*-thieno-[3,2-c]pyridine-4,6- dione;
- 10 I-242: 5-(5-{3-[4-(4,6-dithioxo-hexahydro-thieno[3,2-c]pyridin-5-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-pentyl)-3,3a-dihydro-2*H*-thieno[3,2-c]pyridine-4,6- dithione;
- I-243: 6-[3-(4-*N*-cyano-carbamoyl-4-methyl-pentyloxy)-propoxy]-2,2-dimethyl-*N*-cyano- hexanoic acid-amide;
- 15 I-244: phosphoramidic acid mono-(5-{3-[5- (amino-hydroxy-phosphoryloxy)- 5-methyl-hexyloxy]-propoxy}- 1,1-dimethyl-pentyl) ester;
- I-245: {1,1-dimethyl-5-[3-(5-methyl-5-phosphonamido-hexyloxy)- propoxy]-pentyl}-phosphonamide;
- I-246: 1-{5-[3-(5-{1*H*-tetrazol-1-yl}-5-methyl-hexyloxy)-propoxy]-1,1-dimethyl-pentyl}-1*H*-tetrazole;
- 20 I-247: 5-{5-[3-(5-{1*H*-tetrazol-5-yl}-5-methyl-hexyloxy)-propoxy]-1,1-dimethyl-pentyl}-1*H*-tetrazole;
- I-248: 5-{5-[3-(5-{3-hydroxy-isoxazol-5-yl}-5-methyl-hexyloxy)-propoxy]-1,1-dimethyl-pentyl}-3-hydroxy-isoxazole;
- 25 I-249: 4-{5-[3-(5-{3-hydroxy-isoxazol-4yl}-5-methyl-hexyloxy)-propoxy]-1,1-dimethyl-pentyl}-3-hydroxy-isoxazole;
- I-250: 3-{5-[3-(5-{5-hydroxy-4-oxo-pyran-3-yl}-5-methyl-hexyloxy)-propoxy]-1,1- dimethyl-pentyl}-5-hydroxy-pyran-4-one;
- I-251: 2-{5-[3-(5-{5-hydroxy-4-oxo-pyran-2-yl}-5-methyl-hexyloxy)-propoxy]-1,1- dimethyl-pentyl}-5-hydroxy-pyran-4-one;
- 30 I-252: 1-ethyl-3-(5-{3-[5-(3-ethyl-2,5-dithioxo-imidazolidin-1-yl)-5-methyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2,4-dione;
- I-253: 1-ethyl-3-(5-{3-[5-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-5-methyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2,4-dione;

- I-254: 1-ethyl-3-(5-{3-[5-(3-ethyl-2-thioxo-5-oxo-imidazolidin-1-yl)-5-methyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-4-oxo-2-thione;
- I-255: 1-ethyl-3-(5-{3-[5-(3-ethyl-5-thioxo-2-oxo-imidazolidin-1-yl)-5-methyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2-oxo-4-thione;
- 5 I-256: 2-{4-[3-(4-{tetrahydro-pyran-2-yl}-butoxy)-propoxy]-butoxy}-tetrahydro-pyran;
- I-257: 4-{4-[3-(4-{oxetan-2-one-4-yl}-butoxy)-propoxy]-butyl}-oxetan-2-one;
- I-258: 3-{4-[3-(4-{oxetan-2-one-3-yl}-butoxy)-propoxy]-butyl}-oxetan-2-one;
- I-259: 5-{4-[3-(4-{tetrahydro-furan-2-one-5-yl}-butoxy)-propoxy]-butyl}-tetrahydro-furan-2-one;
- 10 I-260: 4-{4-[3-(4-{tetrahydro-furan-2-one-4-yl}-butoxy)-propoxy]-butyl}-tetrahydro-furan-2-one;
- I-261: 3-{4-[3-(4-{tetrahydro-furan-2-one-3-yl}-butoxy)-propoxy]-butyl}-tetrahydro-furan-2-one;
- 15 I-262: [2-(4-{3-[4-(4-carboxymethyl-4-hydroxy-6-oxo-tetrahydro-pyran-2-yl)-butoxy]-propoxy}-butyl)-4-hydroxy-6-oxo-tetrahydro-pyran-4-yl)-acetic acid;
- I-263: 6-{4-[3-(4-{tetrahydro-pyran-2-one-6-yl}-butoxy)-propoxy]-butyl}-tetrahydro-pyran-2-one;
- 20 I-264: 5-{4-[3-(4-{tetrahydro-pyran-2-one-5-yl}-butoxy)-propoxy]-butyl}-tetrahydro-pyran-2-one;
- I-265: 4-{4-[3-(4-{tetrahydro-pyran-2-one-4-yl}-butoxy)-propoxy]-butyl}-tetrahydro-pyran-2-one;
- I-266: 3-{4-[3-(4-{tetrahydro-pyran-2-one-3-yl}-butoxy)-propoxy]-butyl}-tetrahydro-pyran-2-one;
- 25 I-267: 7-[3-(7-hydroxy-5,5-dimethyl-heptyloxy)-propoxy]-3,3-dimethyl-heptan-1-ol;
- I-268: 7-[3-(6-carboxy-5,5-dimethyl-hexyloxy)-propoxy]-3,3-dimethyl-heptanoic acid;
- 30 I-269: 7-[3-(5,5-dimethyl-6-oxo-hexyloxy)-propoxy]-3,3-dimethyl-heptanal;
- I-270: 7-[3-(6-methoxycarbonyl-5,5-dimethyl-hexyloxy)-propoxy]-3,3-dimethyl-heptanoic acid methyl ester;
- I-271: 7-[3-(5,5-dimethyl-6-phenoxy-carbonyl-hexyloxy)-propoxy]-3,3-dimethyl-heptanoic acid phenyl ester;

- I-272: 7-[3-(6-benzyloxycarbonyl-5,5-dimethyl-hexyloxy)-propoxy]-3,3-dimethyl-heptanoic acid benzyl ester;
- I-273: 6-[3-(5,5-dimethyl-6-sulfo-hexyloxy)-propoxy]-2,2-dimethyl-hexane-1-sulfonic acid;
- 5 I-274: phosphoric acid mono-{6-[3-(5,5-dimethyl-6-phosphonooxy-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-ester;
- I-275: 5-(6-{3-[6-(4,6-dioxo-hexahydro-thieno[3,2-c]pyridin-5-yl)-5,5-dimethyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-3,3a-dihydro-2*H*-thieno[3,2-c]pyridine-4,6-dione;
- 10 I-276: 5-(5-{3-[4-(4,6-dithiohexahydro-thieno[3,2-c]pyridin-5-yl)-4-methyl-pentyloxy]-propoxy}-1,1-dimethyl-pentyl)-3,3a-dihydro-2*H*-thieno[3,2-c]pyridine-4,6-dithione;
- I-277: 7-[3-(6-*N*-cyano-carbamoyl-5,5-dimethyl-hexyloxy)-propoxy]-3,3-dimethyl-*N*-cyano-heptanoic acid-amide;
- 15 I-278: phosphoramidic acid mono-{7-[2-(6-{amino-hydroxy-phosphoryloxy}-5,5-dimethyl-hexyloxy)-ethoxy]-2,2-dimethyl-heptyl} ester;
- I-279: {6-[3-(5,5-dimethyl-6-phosphonamido-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-phosphonamide;
- I-280: 1-{6-[3-(6-{1*H*-tetrazol-1-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-1*H*-tetrazole;
- 20 I-281: 5-{6-[3-(6-{1*H*-tetrazol-5-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-1*H*-tetrazole;
- I-282: 5-{6-[3-(6-{3-hydroxy-isoxazol-5-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-3-hydroxy-isoxazole;
- 25 I-283: 4-{6-[3-(6-{3-hydroxy-isoxazol-4-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-3-hydroxy-isoxazole;
- I-284: 2-{6-[3-(6-{5-hydroxy-4-oxo-pyran-3-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-5-hydroxy-pyran-4-one;
- I-285: 2-{6-[3-(6-{5-hydroxy-4-oxo-pyran-2-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-5-hydroxy-pyran-4-one;
- 30 I-286: 3-{6-[3-(6-{5-hydroxy-4-oxo-pyran-3-yl}-5,5-dimethyl-hexyloxy)-propoxy]-2,2-dimethyl-hexyl}-5-hydroxy-pyran-4-one;
- I-287: 1-ethyl-3-(6-{3-[6-(3-ethyl-2,5-dithioimidazolidin-1-yl)-5,5-dimethyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2,4-dione;

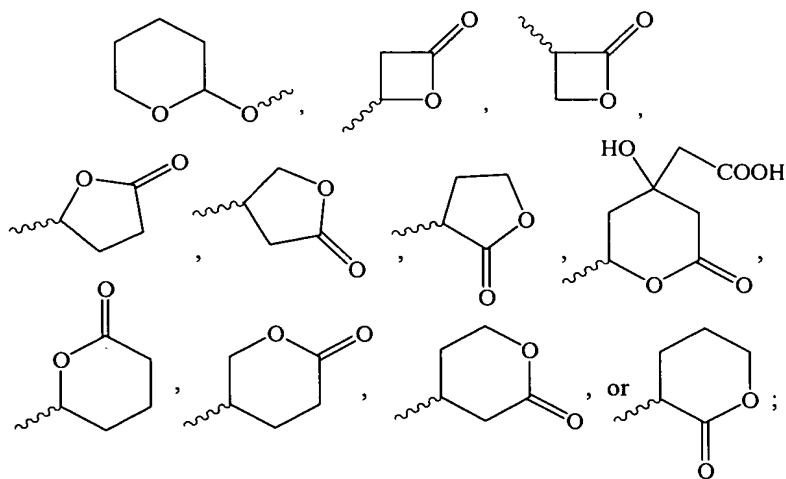
- I-288: 1-ethyl-3-(6-{3-[6-(3-ethyl-2,5-dioxo-imidazolidin-1-yl)-5,5-dimethyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2,4-dione;
- I-289: 1-ethyl-3-(6-{3-[6-(3-ethyl-5-oxo-2-thioxo-imidazolidin-1-yl)-5,5-dimethyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-4-oxo-2-thione;
- 5 I-290: 1-ethyl-3-(6-{3-[6-(3-ethyl-2-oxo-5-thioxo-imidazolidin-1-yl)-5,5-dimethyl-hexyloxy]-propoxy}-2,2-dimethyl-hexyl)-imidazolidine-2-oxo-4-thione;
- I-291: 6-[3-(5-carboxy-5-methyl-hexyloxymethyl)-benzyloxy]-2,2-dimethyl-hexanoic acid;
- I-292: 6-[3-(5-carboxy-5-methyl-hexyloxymethyl)-benzyloxy]-2,2-dimethyl-hexan-1-ol;
- 10 I-293: 6-[3-(6-hydroxy-5,5-dimethyl-hexyloxymethyl)-benzyloxy]-2,2-dimethyl-hexan-1-ol;
- I-294: 5-[3-(4-carboxy-4-methyl-pentyloxymethyl)-benzyloxy]-2,2-dimethyl-pentanoic acid;
- I-295: 5-[3-(4-carboxy-4-methyl-pentyloxymethyl)-benzyloxy]-2,2-dimethyl-hexan-1-ol;
- 15 I-296: 5-[3-(5-hydroxy-4,4-dimethyl-pentyloxymethyl)-benzyloxy]-2,2-dimethyl-pentan-1-ol; or
- I-297: 5-[2-(5-hydroxy-4,4-dimethyl-pentyloxy)-ethoxy]-2,2-dimethyl-pentan-1-ol.

30. A compound of the formula II:

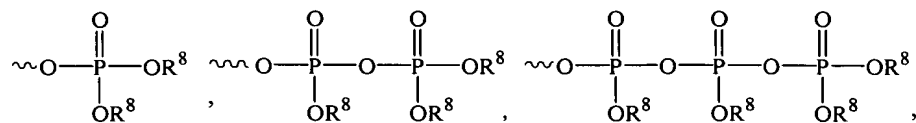


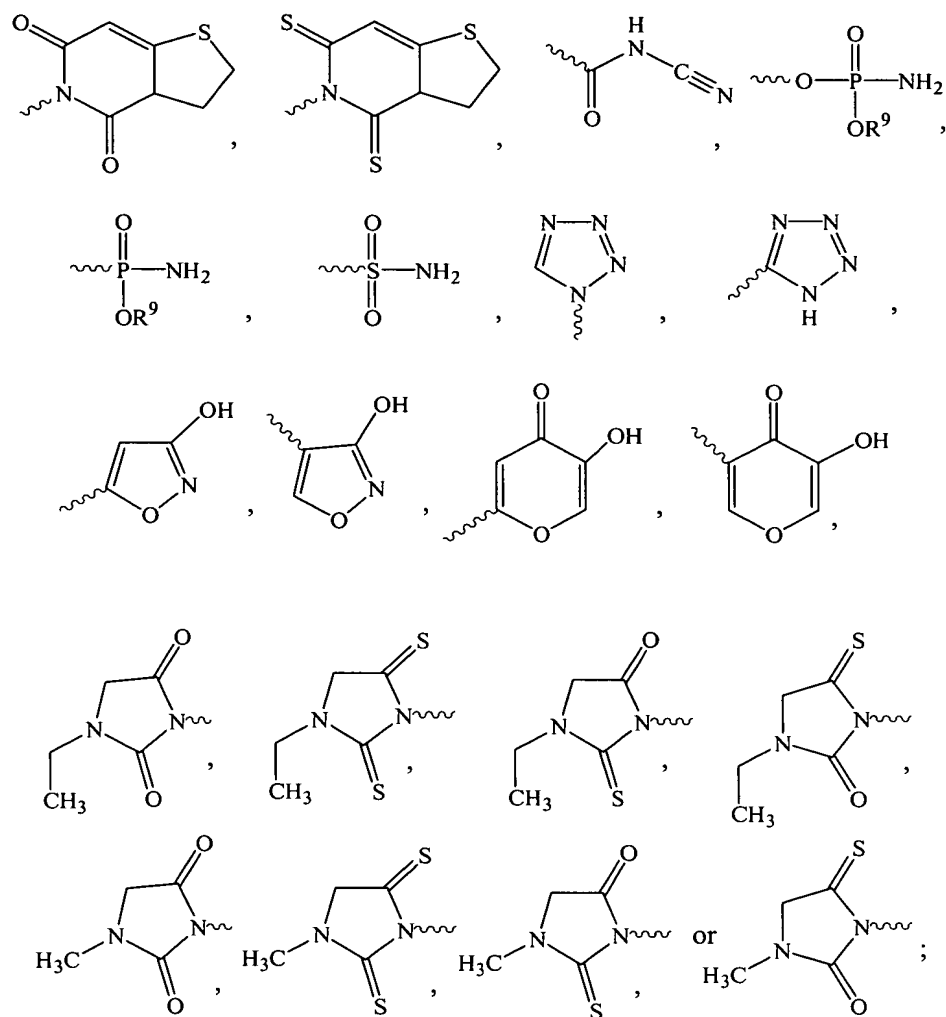
or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- 5 (a) each occurrence of Z is independently $(CH_2)_m$, $(CH=CH)_t$, or phenyl, where each occurrence of m and t are independent integers ranging from 1 to 5;
- (b) G is $(CH_2)_x$, $CH_2CH=CHCH_2$, $CH=CH$, CH_2 -phenyl- CH_2 , or phenyl, where x is an integer ranging from 1 to 4;
- (c) W^1 and W^2 are independently $C(R^1)(R^2)(CH_2)_n$ -Y, V, or $C(R^1)(R^2)-(CH_2)_c$ -V where
 10 c is 1 or 2 and n is an integer ranging from 0 to 4;
- (d) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, or benzyl;
- (e) V is



- 15 (f) each occurrence of Y is independently OH, COOH, CHO, COOR⁷, SO₃H,

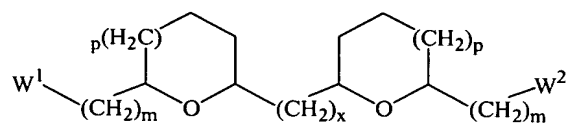




- (g) R⁷ is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (h) each occurrence of R⁸ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (i) each occurrence of R⁹ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl; and
- (j) each occurrence of p is independently 0 or 1 where the broken line represents an optional presence of 1 or 2 additional carbon-carbon bonds that when present complete 1 or 2 carbon-carbon double bonds.

31. The compound of claim 30, wherein W^1 and W^2 are independent $C(R^1)(R^2)(CH_2)_n-Y$ groups and each occurrence of Y is independently OH, $COOR^7$, or COOH.
32. The compound of claim 30, wherein W^1 is $C(R^1)(R^2)(CH_2)_n-Y$.
33. The compound of claim 30, wherein W^1 is V.
- 5 34. The compound of claim 30, wherein W^1 is $C(R^1)(R^2)-(CH_2)_c-V$.
35. The compound of claim 30, wherein p is 0.
36. The compound of claim 30, wherein p is 1.
37. The compound of claim 30, wherein t is 1.

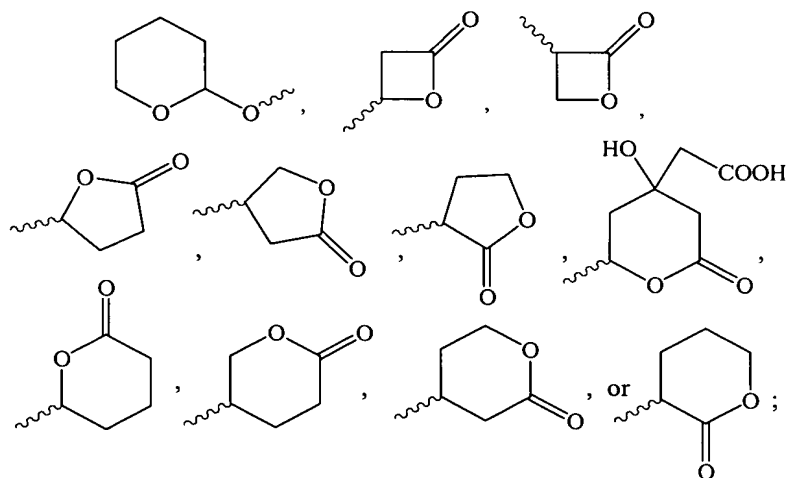
38. A compound of the formula **IIa**:



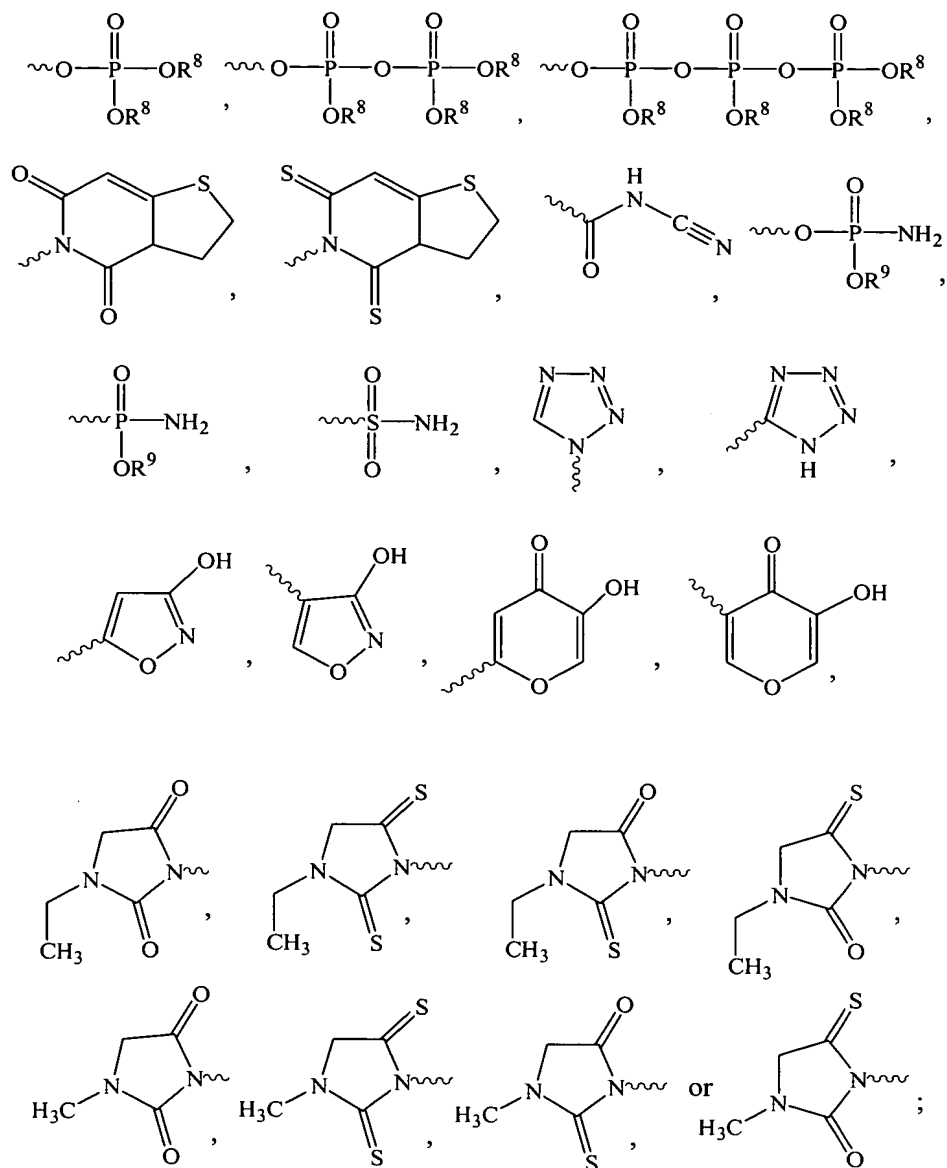
IIa

or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- 5 (a) each occurrence of m is independently an integer ranging from 1 to 5;
- (b) x is an integer ranging from 1 to 4;
- (c) W^1 and W^2 are independently $C(R^1)(R^2)(CH_2)_n-Y$, V, or $C(R^1)(R^2)-(CH_2)_c-V$ where c is 1 or 2 and n is an integer ranging from 0 to 4;
- 10 (d) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, or benzyl;
- (e) V is



(f) Y is OH, COOH, CHO, COOR⁷, SO₃H,



5

(g) R⁷ is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;

(h) each occurrence of R⁸ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;

10

(i) each occurrence of R⁹ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl; and

(j) each occurrence of p is independently 0 or 1.

39. The compound of claim 38, wherein W^1 and W^2 are independent $C(R^1)(R^2)(CH_2)_n-Y$ groups and each occurrence of Y is independently OH, $COOR^7$, or COOH.

40. The compound of claim 38, wherein W^1 is $C(R^1)(R^2)(CH_2)_n-Y$.

5 41. The compound of claim 38, wherein W^1 is V.

42. The compound of claim 38, wherein W^1 is $C(R^1)(R^2)-(CH_2)_c-V$.

43. The compound of claim 38, wherein p is 0.

44. The compound of claim 38, wherein p is 1.

45. A compound of the formula:

- 10 II-1: 5-(6-{3-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-2: 5-(6-{3-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 15 II-3: 5-(6-{3-[6-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-4: 5-(6-{3-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-5: 5-(6-{3-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 20 II-6: 5-(6-{3-[6-(4-carboxyl-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-7: 6-(6-{3-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-8: 6-(6-{3-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- 25 II-9: 6-(6-{3-[6-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-propyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;

- II-10: 6-(6-{3-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-11: 6-(6-{3-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- 5 II-12: 6-(6-{3-[6-(5-carboxyl-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-propyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-13: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-14: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- 10 II-15: 6-(6-{2-[6-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-16: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- 15 II-17: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-18: 6-(6-{2-[6-(5-carboxyl-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-19: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- 20 II-20: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-21: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-vinyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 25 II-22: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-23: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-24: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-vinyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 30 II-25: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-phenyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-26: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-phenyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;

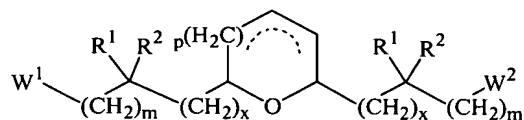
- II-27: 6-(6-{2-[6-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-pyran-2-yl]-phenyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-28: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- 5 II-29: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-30: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-31: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-phenyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- 10 II-32: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-33: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 15 II-34: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-35: 6-(6-{2-[6-(6-hydroxy-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- II-36: 6-(6-{2-[6-(5-carboxyl-5,5-dimethyl-hexyl)-4-oxo-pyran-2-yl]-phenyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-hexanoic acid;
- 20 II-37: 5-(5-{3-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-38: 5-(5-{3-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- 25 II-39: 5-(5-{3-[5-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-40: 5-(5-{3-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-41: 5-(5-{3-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- 30 II-42: 5-(5-{3-[5-(4-carboxyl-4,4-dimethyl-pentyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-43: 6-(5-{3-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexan-1-ol;

- II-44: 6-(5-{3-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-45: 6-(5-{3-[5-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-propyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 5 II-46: 6-(5-{3-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-47: 6-(5-{3-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-48: 6-(5-{3-[5-(5-carboxyl-5,5-dimethyl-hexyl)-furan-2-yl]-propyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 10 II-49: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-50: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 15 II-51: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-52: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-53: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 20 II-54: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-55: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- 25 II-56: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-57: 5-(5-{2-[5-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-vinyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-58: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- 30 II-59: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-60: 5-(5-{2-[5-(4-carboxyl-4,4-dimethyl-pentyl)-furan-2-yl]-vinyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;

- II-61: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- II-62: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 5 II-63: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-64: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-65: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- 10 II-66: 5-(5-{2-[5-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-furan-2-yl]-phenyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-67: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-pentan-1-ol;
- 15 II-68: 5-(5-{2-[5-(5-hydroxy-4,4-dimethyl-pentyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-69: 5-(5-{2-[5-(4-carboxyl-4,4-dimethyl-pentyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-pentanoic acid;
- II-70: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- 20 II-71: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-72: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-furan-2-yl]-phenyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- 25 II-73: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-ethyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-74: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-ethyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-75: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-tetrahydro-pyran-2-yl]-ethyl}-tetrahydro-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- 30 II-76: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-ethyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentan-1-ol;
- II-77: 5-(6-{2-[6-(5-hydroxy-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-ethyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;

- II-78: 5-(6-{2-[6-(4-carboxyl-4,4-dimethyl-pentyl)-4-oxo-pyran-2-yl]-ethyl}-4-oxo-pyran-2-yl)-2,2-dimethyl-pentanoic acid;
- II-79: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-ethyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- 5 II-80: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-ethyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-81: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-tetrahydro-furan-2-yl]-ethyl}-tetrahydro-furan-2-yl)-2,2-dimethyl-hexanoic acid;
- II-82: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-ethyl}-furan-2-yl)-2,2-dimethyl-hexan-1-ol;
- 10 II-83: 6-(5-{2-[5-(6-hydroxy-5,5-dimethyl-hexyl)-furan-2-yl]-ethyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid; or
- II-84: 6-(5-{2-[5-(5-carboxyl-5,5-dimethyl-hexyl)-furan-2-yl]-ethyl}-furan-2-yl)-2,2-dimethyl-hexanoic acid.

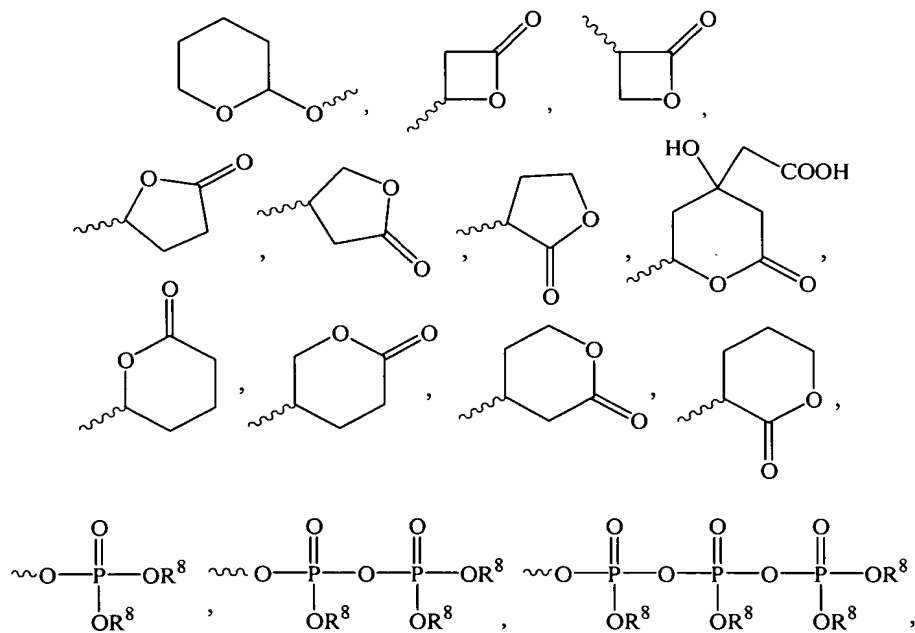
46. A compound of the formula **III**:

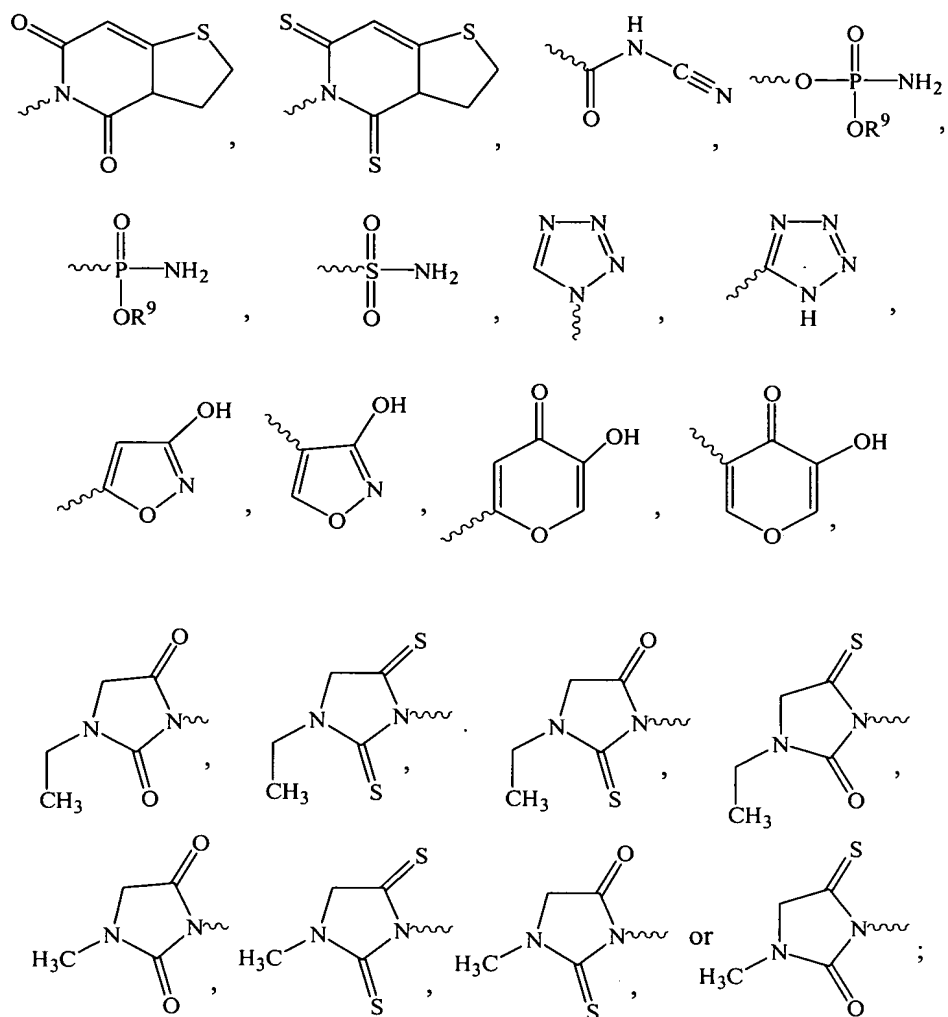


III

or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- 5 (a) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, or benzyl; or R^1 , R^2 , and the carbon to which they are both attached are taken together to form a (C_3-C_7) cycloalkyl group;
- (b) each occurrence of m is an independent integer ranging from 0 to 4;
- (c) each occurrence of x is independently 2 or 3;
- 10 (d) W^1 and W^2 are independently OH, $C(O)OH$, CHO, $OC(O)R^7$, $C(O)OR^7$, SO_3H ,

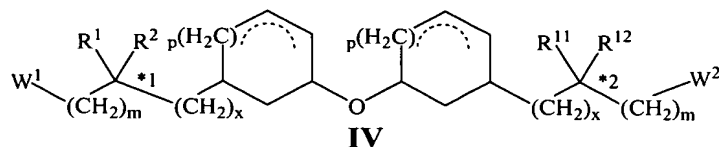




- (e) R⁷ is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (f) each occurrence of R⁸ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (g) each occurrence of R⁹ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl; and
- (h) p is 0 or 1 where the broken line represents an optional presence of 1 or 2 additional carbon-carbon bonds that when present complete 1 or 2 carbon-carbon double bonds.

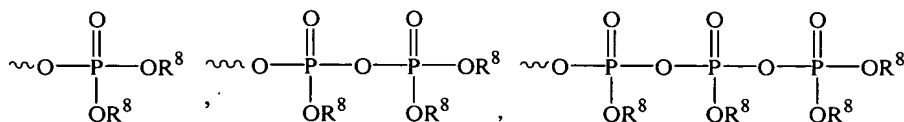
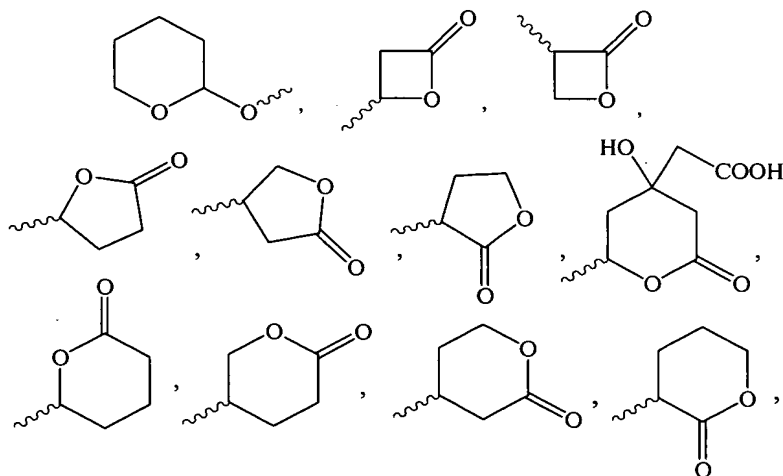
47. The compound of claim 46, wherein W^1 and W^2 are independently OH, COOR⁷, or COOH.
48. The compound of claim 46, wherein p is 0.
49. The compound of claim 46, wherein p is 1.
- 5 50. The compound of claim 46, wherein the broken line is absent.
51. The compound of claim 46, wherein each occurrence of R^1 and R^2 is independently (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl.

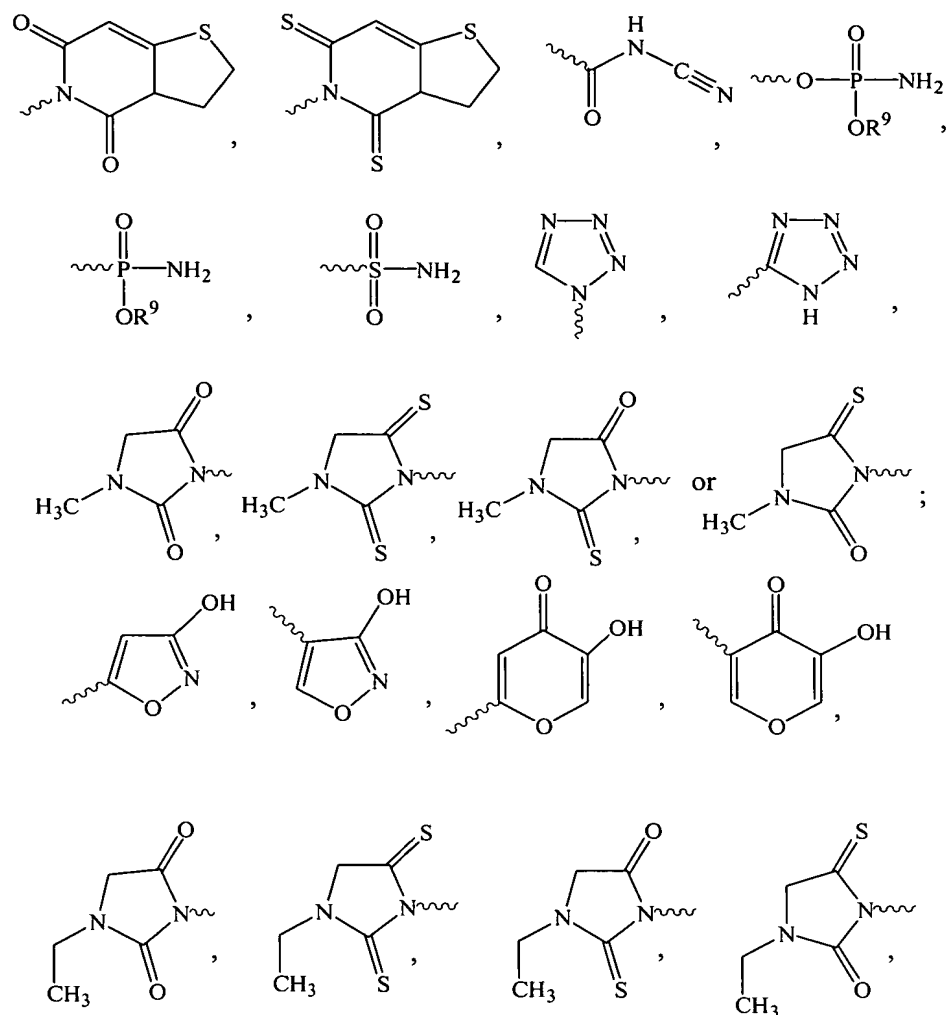
52. A compound of the of formula **IV**:



or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof, wherein:

- 5 (a) each occurrence of R^1 and R^2 is independently (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, benzyl, or R^1 and R^2 and the carbon to which they are both attached are taken together to form a (C_3-C_7) cycloalkyl group;
- (b) each occurrence of R^{11} and R^{12} is independently H, (C_1-C_6) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, phenyl, benzyl, or R^{11} and R^{12} and the carbon to which they are both attached are taken together to form a (C_3-C_7) cycloalkyl group;
- 10 (c) each occurrence of m is independently an integer ranging from 0 to 6;
- (d) each occurrence of x is independently an integer from 0 to 4;
- (e) W^1 and W^2 are independently (C_1-C_6) alkyl, OH, $C(O)OH$, CHO, $OC(O)R^7$, $C(O)OR^7$, SO_3H ,

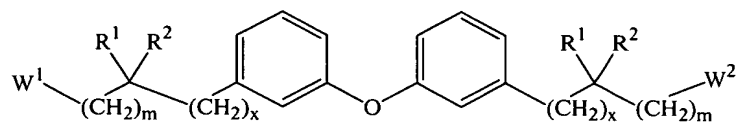




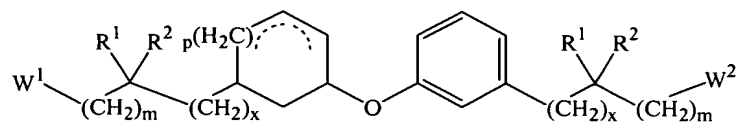
- (f) R⁷ is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl and is unsubstituted or substituted with one or more halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (g) each occurrence of R⁸ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl and is unsubstituted or substituted with one or two halo, OH, (C₁-C₆)alkoxy, or phenyl groups;
- (h) each occurrence of R⁹ is independently H, (C₁-C₆)alkyl, (C₂-C₆)alkenyl, or (C₂-C₆)alkynyl; and
- (a) (i) each occurrence of p is independently 0 or 1 where the broken line represents an optional presence of 1, 2, or 3 additional carbon-carbon bonds that when present form a cycloalkenyl group, a cyclodienyl group, or a phenyl group.

53. The compound of claim 52, wherein W^1 and W^2 are independently OH, COOR⁷, or COOH.
54. The compound of claim 52, wherein each occurrence of R^1 and R^2 is independently (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, phenyl, or benzyl.
- 5 55. The compound of claim 52, wherein p is 0.
56. The compound of claim 52, wherein p is 1.
57. The compound of claim 52, wherein the broken line is absent.

58. The compound of claim 52, having the formula:



59. The compound of claim 52, having the formula:



60. A pharmaceutical composition comprising a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, clathrate, enantiomer, diastereomer, racemate, or a mixture of stereoisomers thereof and a pharmaceutically acceptable vehicle, excipient, or diluent and a pharmaceutically acceptable vehicle, excipient, or diluent.

61. A pharmaceutical composition comprising one or more of the following compounds:

I-114 4-[3-(3-carboxy-3-methyl-butoxy)-propoxy]-2,2-dimethyl-butyric acid,

I-297 5-[2-(5-hydroxy-4,4-dimethyl-pentyloxy)-ethoxy]-2,2-dimethyl-pentan-1-ol,

IV-1 3-{3-[3-(2-Carboxy-2-methyl-propyl)-phenoxy]-phenyl}-2,2-dimethyl-propionic acid,

IV-2 1-{3-[3-(2-hydroxy-2-methyl-propyl)-phenoxy]-phenyl}-2-methyl-propan-2-ol,

or a pharmaceutically acceptable salt, hydrate, solvate, clathrate, enantiomer, diastereomer, racemate, or a mixture of stereoisomers thereof and a pharmaceutically acceptable vehicle, excipient, or diluent.

62. A method for treating or preventing a cardiovascular disease in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

63. A method for treating or preventing a dyslipidemia in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically effective

amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

64. A method for treating or preventing a dyslipoproteinemia in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically effective
5 amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

65. A method for treating or preventing a disorder of glucose metabolism in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38,
10 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

66. A method for treating or preventing hypertension in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

15 67. A method for treating or preventing renal disease in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

68. A method for treating or preventing cancer in a patient, comprising administering to
20 a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof

69. A method for treating or preventing inflammation in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or
25 prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof

70. A method for treating or preventing impotence in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or

prophylactically effective amount of a compound of comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof

5 71. A method for treating or preventing a neurodegenerative disease or disorder in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof

10 72. A method of inhibiting hepatic fatty acid synthesis in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

15 73. A method of inhibiting sterol synthesis in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

20 74. A method of treating or preventing metabolic syndrome disorders in a patient, comprising administering to a patient in need of such treatment or prevention a therapeutically or prophylactically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

25 75. A method of treating or preventing a disease or disorder that is capable of being treated or prevented by increasing HDL levels, which comprises administering to a patient in need of such treatment or prevention a therapeutically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

76. A method of treating or preventing a disease or disorder that is capable of being treated or prevented by lowering LDL levels, which comprises administering to such patient

in need of such treatment or prevention a therapeutically effective amount of a compound of claim 1, 13, 21, 26, 27, 28, 29, 30, 38, 45, 46, or 52 or a pharmaceutically acceptable salt, hydrate, solvate, or a mixture thereof.

77. A pharmaceutical composition comprising a compound of claim 1, 11, 28, 29, 30,
5 31, 32, 33, 34, or 35 and a pharmaceutically acceptable vehicle, excipient, or diluent which is administered in combination with a statin.